

EVALUATION OF A FEW TRADITIONAL MEDICINAL PREPARATIONS, USED IN HEALING OF BURNS

JOSIF RISTO

Medical Faculty, American University of Tirana, Tirana, Albania

ABSTRACT

The result of many years of work and research of practicing medicine in healing of skin burns in our country has also been the evidence of a considerable number of preparations for healing these burns. The healing methods for such burns have been used throughout centuries for their treatment. Some of them are known to be practiced with success even today not only in the region of Kolonja, but also in other regions in Albania. Apart from this fact, these preparations show special importance from a pharmaceutical point of view. They have made us pay special attention since they differ in ingredient processing, in the excipients that are used in creating these medications but also the way the treatment is given to the patients with skin burns

Target: In our work of researching popular methods of treatment used in our country, especially in the area of Kolonja, among others, we have identified a series of popular receipts that we use for preparing treatment of burns. Starting from positive practical results of treatment with these preparations, expressed by different persons, which are used by them or their relatives, we saw reasonable to stop on this aspect for a deeper valuation of it.

Purpose: We thought to analyze these methods, both in terms of formulation and ingredients that participate, the manner of preparation, as well as the usage. To highlight the pros and cons of these medications, compared with today's modern medicine used for treating burns.

KEYWORDS: Traditional Medicine, Burns, Skin Burns, Olive Oil, Medical Drugs, Suspensions, Aqueous Extracts

INTRODUCTION

In our research work experience in the traditional medicine of Kolonja, we have highlighted, among others, receipts that are used for treatment of burns. Some of these methods are known for their similarity, both in terms of excipients, methods of preparation and the method of application.

THE WAY OF PREPARATION

In general, the traditional healers, have followed the same procedure, which consists in the preliminary processing, burning or roasting of some drugs and then mixing the powder with olive oil. These two processes, that are being applied are the same, as well as, the way of processing components.

The processing of herbal or animal drugs were being accomplished in several ways:

- Through complete burning (ash);
- Baking until tarnish (then obtained after grinding fine powder);
- Concentrated liquids extraction;
- Finely pulverized herbal drugs.

Complete Burning of the Plant (Herb) or Parts of Medicinal Herbs: After complete burning of certain parts of the plant or the plant as a whole, was being derived (their ash), which was being mixed with olive oil.

For this purpose are used, ashes obtained from wood or bunga oaks (*Quercus petraea* Matt.), root and plat of gjëmbgomari (*Eryngium campestre* L.), the lulebasani plant (*Hypericum perforatum* L.), grape (*Vitis vinifera* L.), kushtanashini (*Psoralea corylifolia* L.), etc.(5,9)

Preparation: Obtained ash from complete combustion of the above products, was mixed with olive oil. The amount of oil was calculated depending on the surface of the burn. With this mixture, was cured the burnt place several times a day. In general, the treatment of the wound was done with a wooden spatula made by ourselves. Whereas, when the measure was liquid, it was spread over the surface of the wound with a feather which enabled the coverage of all the damaged area and caused no pain during the treatment.

The Burning of Some Seeds or Different Ingredients Such as Eggs, Goat Horns, Dove Bones etc

For this purpose are used seeds of some plants: - beans (*Phaseolus vulgaris* L.), oyster plant (*Acanthus spinosus* L.), wheat (*Triticum sativum* L.,*T. vulgare* Vill.), barley (*Hordeum vulgaris* L.) rye (*Secale cereale* L.), bitter vetch (*Vicia ervilia* (L.) Willd.), coffee (*Caffe Arabica* L.). In some cases, when the wound was wet it was powdered directly with the ground powder of above seeds.

Preparation: In this case, the herbal seeds were mixed in a container set on not too strong fire until they were tanned up. They usually used a pan. After cooling they ground them finely in the coffee mill. After that, they mixed some of the powder with oil, while the rest was served to adjust the consistency of the measure. Even in this case, the above quantity of ingredients was calculated depending on the burnt area.

Water Extraction Solution (The Simmer): Another preparation that has been used successfully for the treatment of burns, is the simmer of some plant parts. For this purpose are used leaves, roots and especially the peels of certain plants, especially as elm (*Ulmus campestris* L.), nuts (*Juglandus regia*L.), black alder (*Alnus glutinosa* Gaertn.), the fresh branches of thorns (*Ruby fruticosa* L.) and the root of mallow (*Malva silvestris* L.). (5.8)

Preparation: They took one of the above ingredients and after cleaning and cutting it in small pieces they simmered it in slow fire in two parts of water until the fifth quantity was left. After the fluid was cooled, they gushed it and then used it for the treatment of the burnt area.

Some Finely Crushed Plants in this Way are Used the Blackberry Leaves (*Rubus Ulmifolius Schott; R.Fruticosus L*)

Preparation: After they crushed the well dried drugs by their hands, they finely powdered it in a stone mortar. The powder was kept in a glass container with lid securely closed. It was used for powdering the wounds, caused by burning.

For the Treatment of Burns are also used Several Other Subjects Like Burnt Egg with which was Prepared a Measure Called "Oil of the Egg", which was Derived as below (6.7)

Preparation: Depending on the burnt surface, they used to take some eggs and after breaking them, they threw the red part of the eggs in a pan. At first the egg was coagulated and further after burning it became jelly, heating until it was completely burned. After that a dark fluid was released. The process was ended when the container (pan) had only juice, which they called "Oil egg". At the end, the fluid was thrown into a clean container to preserve. The burnt area was treated with that fluid several times a day (7,9). In some families, in different areas of Albania "oil of the egg", was preserved with some other traditional medicines, to be used in case of illness of family members or their relatives.

TYPE OF TRADITIONAL PREPARATIONS

From the pharmaceutical point of view, these preparations are suspensions and are composed in two phases. (1,4,8). One phase, which is the distribution environment or continuous phase is oily (olive oil), while the next phase that represents the internal phase or the distributed environment, is composed of solid particles of powder. It represents ashes or powder of various medicinal products. They can be suspended or soft liquid, ointments.

Components that Participate in the Formulation of the Traditional Preparations

The selection of ingredients, which are used by popular healers as seen in these preparations are made empirically. So, the outcome of the treatment does not depend on their ingredients (active principle), but from the rest of the dry product that derives from decomposition (burning) of them, or other organic substances contained in these cells. The dry residue (ash), as well as the lack of water in these preparations, constitutes an inappropriate environment for the development of micro-organisms (bacteria, molds).

In general, as an excipients of their preparation is used olive oil, in which are distributed, in the form of the suspension, the inorganic residue of herbal or animal drugs previously processed. At first we remove the acidity from oil. According to the popular experience, the oil is released from acidity, boiling it several times with water and then separating it from the cold water. With this wise action, handled by traditional healers, the oil was sterilized at the same time (6,7). This is an important procedure to ensure the sterility of the wound treated with these kind of preparations.

THE WAY OF USAGE FROM TRADITIONAL HEALERS

Knowing well the histological skin construction (2) and the changes occurring in its cellular structure after the contact with a warm object or liquid, we come to some logical reasons for the effectiveness of traditional methods described above. At first they were empirically used, but then, having the good results of treatment, resulting in rapid healing of the burnt wound and in most cases without leaving signs, preparation is transmitted from generation to generation and has taken an important place in medicine tradition of our people (6,7,9).

The damaged area is treated immediately in all types of burns. Almost in all methods used by various popular healers contacted. They recommended us that the preparation should be fresh in the right moment of usage. The preparation should always be in a sufficient amount to treat the damaged area until the complete healing. Meanwhile, the area should not be banded and the wound doesn't have to be treated several times a day. It mustn't be in contact with environment for any moment, but it should have all the time a thin layer of drug prepared (6,7,9).

Explanations and Interpretations of the Mechanism of Medicinal Actions of the Popular Receptures, Used for Treatment of Burns

On the superficial burns, occurs the breakage of layers of the skin cells and the cellular fluid forms a pouch to the skin surface. According to the popular experiences (7), the damaged area is treated with one of the above preparations. If the pouch breaks and it occurs while the burning is deeper, the cellular fluid spreads on the surface of the wound created by the destruction of the cells. Popular experiences (2,6,7,9), focused on starting as early as possible the treatment thus it can avoid the contamination of the wound during the exposure to the surrounding environment. It affects quite well on the success of the treatment. Also the usual treatment provides a protection of the wound from inflammation. In these preparations we see that the traditional healers, regardless of the ingredients, all arrive in the same order of preparation and usage. Such a treatment ensures a rapid recovery and in the area there remains no signs of damage (7).

The pleasing outcome of the treatment, in all cases, is related to the preservation of the damaged area by microorganisms, which may be developed very well in an environment with nutrients of damaged cells. Thanks to the formulation of the above preparations, in which we are dealing with ingredients such as ash or burned material (herbal or animal drugs) where organic substances are missing (after being destroyed by burning,) is provided a field where the development of microorganisms is impossible or limited.

This is reinforced by the lack of water in some preparations. At the same time, the layer that is usually being put on the wound prevents the penetration of microorganisms in the damaged skin tissues. On the other hand, the damaged cells are being renewed by the body. The presence of oil hydrates the skin (keeps it wet) and this helps the cells to develop in a regular way until the complete healing of the wound.

In opposition with another medication, wound is threatened from water loss, the skin loses strength and in the wound surface crusts are formed. Under the crusts, the growth of regular cells is prevented. In that part of the skin there will be formed deformations of cells structure, which after healing of the wound remain visible signs. The same thing happens with sterile gauzes that may be placed over the wound. In these preparations there aren't recommended wound connections. When the gauzes are changed, the wound gets worse when the new structure breaks the newly formed cell.

CONCLUSIONS

- These preparations are simple to prepare and can be used as an alternative treatment, along with contemporary treatment of burns. There remains no signs in the burnt area
- The treatment of the burns should be as early as possible because it can be easily prepared in ambulatory conditions from medical personnel or relatives of the victim
- It can be recommended as an optional treatment for rural areas because the delays of transporting the patient to the specialist burns centers may be due to contaminate the wound and the beginning of the infection. Therefore, the initial treatment with this method, at least until taking the receipt of the qualified service, will be another advantage of these methods
- In addition, the superinfections that could come from the delayed treatment are minimized and the usage of antibiotics becomes limited or unnecessary
- The treatment of the burns can be done in a very low cost
- Perhaps this work could stimulate somehow the specialists of the treatment of burns for clinical experimentations in various degrees of combustion, which will result in completing the studied preparations described in this modest work

REFERENCES

1. Amoros M. Annales Pharmaceutiques françaises 1977. nr. 9-10, 334-349.
2. Çoçaj N.: Hasi Enciklopedi Etnokulturore V 2012
3. Hansen J.: Anatomia of Netter. 2012.
4. Leklerc H.: Precis de phitoterapie 1986.
5. Misiri N. Bimët mjekësore të Shqipërisë. 2011

6. Misiri N., Vogli H. 550 receta të mjekësisë popullore (Treva e Elbasanit). 2007
7. Ndoja H. Mjekësia popullore kulturë e lashtë në shërbim të shëndetit (receptura). 1995
8. Papadhopulli G. Bimët mjekësore dhe aromatike të shqipërisë. 1987
9. Risto J. Bimët mjekësore në recepturën popullore të zonës së Barmashit. Referat Sesioni Shkencor Tiranë 9 Qërvshor 1990.

